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ABSTRACT

Some of the reasons for the proliferation of futures courses are discussed and the findings of a recent comprehensive survey of high school futurist courses are summarized. These include mention of some techniques peculiarly common to futures studies. They include science fiction, scenarios, the Delphi Technique, a technique called "What If?", and games and simlations. A list of publications and six centers for materials on futures studies are supplied for school personnel contemplating the initiation of futures studies courses in their schools. Programs described at 10 schools that have developed futures studies conclude the report. (Author/MIF)

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CURRICULUM REPORT

Research / Ideas / Practice

Vol. 7 No. 4 April 1978

ON STUDYING FUTURES:

. . . by preference
. . . and stating preferences

Education Copes with "Future Shock"

Futuristics, futurology, futurism, future studies -- all are synonyms for the scholarly and scientific exploration of and planning for the future. Alvin Toffler's books Future Shock (1970) and Learning for Tomorrow (1974) challenged the educational world into doing something to arm students to withstand the impact of accelerated change. He defines futures studies as "the science of charting the probable, the art of imagining the possible, and the politics of determining the preferable."

In 1966 it was virtually impossible to find futures courses in higher education, much less in secondary and elementary schools. Today, more than 400 colleges and universities offer futures courses, many leading to a baccalaureate degree; several leading to the master's degree. And at least 200 high schools are presenting futures semester electives in their curricula.

Why Future Studies?

Why has there been a proliferation of individual futurists, futurist organizations, and academic courses in futuristics? Some reasons are:

- Increasingly, educators are recognizing that they have paid lip service, primarily, to the goal of preparing youth for future adult life. They acknowledge that the future is full of variables and potential and that an overspill from the future pours into the present. They are seriously attempting to prepare young people for the future, not just to give them a sense of the past as the past-oriented curriculum has done.

- Books, movies, television, and science fiction have stimulated interest in futures outside the classroom.

- Think tanks like The Hudson Institute, the Institute for the Future, the Harvard Program on Technology and Society, Europe 2000, Mankind 2000, and the World Future Society, which publishes the bimonthly The Futurist and numbers more than 18,000 members, have made society conscious that if there is a prospect of future shock, then dealing with it now may transform it into something less intimidating.

- Anticipatory democracy requires that all citizens be involved in forecasting possible, probable, and alternative futures and in the determining of preferable futures. To that end, 14 states have established commissions or "tomorrow groups" to popularize comprehensive future planning.

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Futures Studies in High Schools

In the fall of 1975, Richard Stock, then principal of Locust Valley High School in New York (a pioneer school in secondary futures education) completed his doctoral dissertation at Columbia University. Entitled "Futures Studies: A Survey of Secondary School Programs," it is the most recent comprehensive survey of high school futurist courses. His findings are reported in The World Future Society Bulletins of May-June and July-August, 1977.

Stock's data also appear in The Future: A Guide to Information Sources, which was compiled, edited, and published in the fall of 1977 by The World Future Society. This 2,000-source, annotated compendium of 450 individual futurists, 230 futurist organizations in the United States and abroad, 400 books and reports, 107 periodicals, 200 educational courses and programs, 354 films, 64 audiotapes, 31 games and simulations, and a glossary of futurist terms was funded by the National Science Foundation and the Library of Congress, Congressional Research Service.

(THIS "BIBLE" OF FUTURE STUDIES AND THE ISSUES OF THE BULLETINS MAY BE OBTAINED FROM THE WORLD FUTURE SOCIETY, 4916 ST. ELMO DRIVE, WASHINGTON, D.C. 20014. THE GUIDE COSTS $19.50.)

Futures Courses Come and Go

Stock's data about high school futures courses are based on responses to his 1973-74 questionnaire. Many of the course descriptions are already out of date. Just exactly how many schools are offering futures studies today is not known, but it is more than the 184 Stock identified. Many schools that started futures courses in the 1970s have abandoned them for various reasons, many are still being offered, and many more are being initiated and implemented. (The Exempli Gratia section of this Curriculum Report, however, is based on responses to an NASSP request for 1977-78 futures studies syllabi. And there is evidence that futures studies are proliferating as exemplary programs are shared with other schools and districts.)

Stock defined futures studies instruction as "any serious, organized attempt to teach individuals in the application of concepts and methods of intelligently conjecturing about the future." His study documented the existence in 1973 or 1974 of 184 high schools offering futuristics; of these, 83.7 percent were public schools and the remainder were Catholic and other private independent institutions. Of the total, 37.5 percent were in urban North Central, Northeastern, and Western areas. Only 9.2 percent were in the South. Futures courses were reported from 36 states and Puerto Rico, and 50 percent of those reported were from California, New York, Minnesota, Ohio, and Massachusetts.

Alternative Approaches

The programs Stock surveyed included various practices and approaches, data that seem to be relatively unchanged:

- One practice was to offer separate semester courses devoted to futurism (67.5 percent).
- Another practice was to incorporate separate futurist units into broader courses (53.8 percent).
- The elective approach dominated over the required course.

- Social studies (76.4 percent) and English (56.6 percent) departments dominated futures instruction supervision.*
- The interdisciplinary approach was reported by 27.2 percent of the schools (the figure would be higher today), with the most usual combination that of English and social studies. Science, art, music, and religion departments, however, were involved in various schools.

A Major Concern

A concern of Stock after completing the survey was that a major goal of futures studies ought to be to help students develop an optimistic attitude toward the future. In his survey that goal was ranked fourteenth out of 19 suggested as goal statements and seventeenth out of the 19 in respect to success in achieving that goal.

"Students project major catastrophes or changes at the societal or global level," Stock says, "but seem to think these events apparently have little effect on the projections for their personal lives. Thus far, in futures teaching, a pessimistic approach has prevailed. There is a need to balance it with optimistic viewpoints."

Topics of Future Studies

In his survey, Stock uncovered 28 different topics commonly included in futures courses. All of them and a number of newer ones appear later in the Exempli Gratia section of this report. In some of the schools where futuristics has been dropped, the reason given was that the topics were too "controversial." In contacting 50 schools, NASSP asked if controversy had been a problem in setting up the courses. Not a single school responding had had such a problem -- with teachers, students, administrators, school boards, or community. In fact, in each case, strong support of the proposed course by all segments of the local educational community had been what encouraged institution of the course.

Methods, Tools, and Activities

Besides such age-old teaching-learning devices as discussion, analysis, research, reading, writing, reporting, debating, viewing media, and building models, a number of other techniques are peculiarly common to futures studies. They include:

- Science Fiction. This body of subject matter becomes a tool in futures courses because its theme is the impact of change. SciFi is a treasure chest of futuristic images. It enhances students' sense of the future by enlivening their imagination and increasing their ability to cope with change and surprise. It illustrates the concepts, techniques, and difficulties of forecasting and depicting alternative possible societies. And many SciFi stories serve as early-warning systems for emerging public-policy issues, such as genetic engineering, overpopulation, and military technologies. It doesn't offer solutions but raises the right questions.

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*As English departments withdraw from multiple electives, science fiction, the elective most apt to stress future studies, is also disappearing from English courses.

▶ What If? Based on a short story, "What If?" by Isaac Asimov, this technique was devised by Bernard Hollister of Willowbrook High School (see page 11 of this report) to enlarge the vision of the student toward the future. It is the aim of "What Ifs?" to help students forecast the future and to take some contemporary trend or invention and project it to its absurd point. It is similar to the scenario. An example is, "What if a pollution-free electric car were perfected which could reach speeds comparable to present cars and could be recharged every 300 miles for the same price as one tank of gasoline?" More such "What Ifs?" are available from Hollister at Willowbrook High School.

▶ Scenarios. As defined by Herman Kahn and Antony Wiener of The Hudson Institute, a scenario is an attempt to describe a hypothetical sequence of events that could lead plausibly to the situation pictured. The advantages of a scenario as an aid to thinking are:

- They call attention to the larger range of possibilities that must be considered in analyzing the future.
- They force analysts to deal with details they might avoid.
- They dramatize and illustrate the possibilities on which they focus.
- They limn the interaction of social, economic, cultural, psychological, political, and military factors in a way that induces comprehension.
- They may be used to consider alternative outcomes.
- They stimulate and discipline the imagination, always the principal means of dealing with the unknown.

▶ Delphi Technique. The Delphi study is drawn from the assumptions underlying polling procedures and the jury system. The technique gathers the opinions of experts through an intermediary, shares these opinions anonymously, refines them in successive rounds of questioning, and results in a group consensus. Much of the fame of futures study at the University of Illinois is due to a computerized futures game, "The Delphi Exploration, A Computer Based System for Obtaining Subjective Judgments on Alternative Futures." A description is available from Dr. Stuart Umpleby, University of Illinois, Urbana, Ill. 61801. And in the Hybrid-Delphi Game, developed by Jerome Ronald Saroff, Department of Urban and Regional Studies, University of Wisconsin, Madison, Wis. 53703, the Delphi technique is combined with face-to-face group negotiations and consensus decision-making centered around questions of values and priorities for specified ventures.

▶ Other Games and Simulations. Of all the futuristic games and simulations being used in schools, a half dozen seem to be the most representative and popular. They are:

- Conflict (1974) by Gerald Thorpe, Simile II, 218 Twelfth St., P.O. Box 810, Del Mar, Calif. 92014.
- Humanus (1973) by Paul Twelker, Simile II.
- Futura City (1973) Newsweek Educational Division, 444 Madison Ave., New York, N.Y. 10022.
- Future Decisions: The I.Q. Game (1975, 2nd. ed.) by Betty Barclay Franks, SAGA Publications, 4833 Greentree Rd., Lebanon, Ohio 45036.
- Build a City and The Immortality Game (1972) both by Joel Barker, Science Museum of Minnesota, 30 E. 10 St., St. Paul, Minn. 55101.

A new book, The Guide to Simulations/Games for Education and Training, edited by Robert E. Horn, revised ed. 1977, is available for $27 from The World Future Society. It describes and evaluates 1,400 different items and includes a demonstration to introduce simulation gaming and to produce materials locally for the classroom.

"Must" Resources for New Futures Courses

Schools contemplating the initiation of futures studies courses in their schools will find a wealth of resources in The Future: A Guide to Information Sources. (See page two of this report.) But other "must" reading would certainly have to include the following:

- Dunstan, Maryjane, and Pike, Dyan. Star Sight: Visions of the Future. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1977.
- Dunstan, Maryjane, and Garlan, Patricia. Worlds in the Making: Probes for Students of the Future. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970.
- Franks, Betty Barclay, and Howard, Mary Kay. Looking Forward: A Mini-Course in Future Studies. New York: The McGraw Hill Films Division, 1975.
- Franks, Betty Barclay, and Howard, Mary Kay. The Biological Revolution: Examining Human Values Through the Futures Perspective. Washington, D.C.: National Education Association, 1976.
- Kauffman, Draper L. Teaching the Future: A Guide to Future-Oriented Education. Palm Springs, Calif.: ETC Publications, 1976.
- Kauffman, Draper L. Futurism and Future Studies: Developments in Classroom Instruction. Washington, D.C.: National Education Association, 1976.
- Toffler, Alvin, ed., Learning for Tomorrow: The Role of the Future in Education. New York: Vintage Books, 1974.

Futures Materials Centers

In addition to The World Future Society, five other centers for materials on futures studies are:

Center for Adaptive Learning, Inc.
34 West 13 Street
New York, N.Y. 10011

Educational Policy Research Center
1206 Harrison Street
Syracuse, N. Y. 13210

Futuremics, Inc.
1346 Connecticut Avenue
Washington, D.C. 20036

International Graduate School of Education
University Park Place
Parker, Colo. 80134

Northwest Regional Foundation
P.O. Box 5296
Spokane, Wash. 99205

Exempli Gratia

As usual in matters of curriculum, the best sources of information are the schools themselves and the teachers who have initiated and developed courses of study. The following schools have exemplary programs in futures studies. The descriptions below are based on information about courses offered during the 1977-78 school year. Each of the schools is willing to share more details upon request.

MELBOURNE HIGH SCHOOL, 74 Bulldog Blvd., Melbourne, Fla. 32901
Contacts: Henry F. Hartrich, principal; Priscilla P. Griffith, teacher

Believed to be the first futures studies course in an American high school, "21st Century" was started at Melbourne in 1966 by Priscilla P. Griffith. Her inspiration was an article, "The Future as a Way of Life," by Alvin Toffler in the summer 1965 issue of Horizon Magazine. She considers the high school fortunate in that Toffler spent two days at Melbourne as a consultant for setting up the course.

Although "21st Century" is a social studies elective, it is interdisciplinary because the English and science departments collaborate on an informal basis. There is a different syllabus for each of two semesters, and a student may earn one half credit for each semester, taking either or both.

Over the years, enrollment in "21st Century," which Griffith has taught for nine years (it was not offered during 1968-71), has decreased because the school population in this Cape Canaveral area has dropped. Also, increasing popularity of job-entry types of programs lures off campus many seniors and juniors, the group that usually is interested in futures studies.

Griffith says that a few years ago she would have predicted that futures studies would spread. Now she is not so sure because of tight money, back-to-basics emphasis, and college prep pressures. If futures study does grow, she forecasts, it will be slowly and will probably become part of a variety of traditional academic courses.

The chief aims of "21st Century" are:

- to introduce students to the need to study the future;
- to help them clarify their values so that they will be able to make intelligent decisions about future developments in science and their personal lives;
- to acquaint them with the concept of change factors and how they operate on the individual, the family, the local, state, and national communities, and the world;
- to introduce them to creative thinking techniques of prediction used by futurists;
- to give them the idea of alternate and preferable futures.

The first unit of the first semester is Introduction to the Future, which presents futuristics, futurists, alternative futures, and change factors. Students write their future histories and draw projected time-lines of their lives. The second unit, The Individual and the Future, includes social invention and science and technology as change factors, ideas and values, communications, demography, and environment. The third unit is The Future of the Family.

The second-semester units are The Future of the Community and Future of the World System. Emphasis is placed on conflict resolution. The course ends with students writing new versions of their future histories, in which they incorporate developments they covered during the semester and show how those developments would affect their lives.

The class activities include discussion, predictive techniques, research, scenario writing, roleplaying, simulation games, drawing a future city, social forecasting, and the use of numerous futurist print and nonprint media.

e g JERICHO HIGH SCHOOL, Cedar Swamp Road, Jericho, N.Y. 11753
Contacts: Paul J. McKee, principal; Robert Hoffman, teacher

When Robert Hoffman instituted "Futures Studies" as a social studies elective (grades 10-12) in 1972, he taught one section of 15 students. This year the course had seven sections with a total enrollment of 110, even though Jericho High does not require a social studies course of seniors, who comprise most of the sections.

Hoffman developed the course after reading Toffler's Future Shock and wondering why the educational system spent so much time and money teaching about the past but offering little to the study of the future. He is now inundated with requests for materials and speaking engagements to help other school districts establish futures courses.

His "Futures Studies" was the first of its kind in not only New York but also the Northeast. He believes that futuristics is the fastest growing academic field at the secondary level in the country.

His course covers biomedical revolution, alternative futures, the nature of change, education, food, energy, communications, transportation, family, marriage, sex, methodologies, values, work, and leisure. Futurists visit his classes as guest speakers about Dome East (housing), biofeedback, EST, mind control, marriage and family, education, and space travel. A corporate trends analysis program enriches the course -- as does a field trip to The Hudson Institute.

Because futurist materials have multiplied so rapidly in the past few years Hoffman has had to revise his syllabus three times. At present his school typist is doing a 176-page revision for next year.

e g BURNSVILLE SENIOR HIGH SCHOOL, 600 East Highway 13, Burnsville, Minn. 55337
Contact: John Welckle, futuristics project director

Futures studies programs are proliferating in Minnesota, largely due to the pioneer work done by Burnsville and Richfield senior high schools. Federal subsidy, under Title IV, Part C (Innovative Programs), for their Futuristics Project covered the years 1973-76. In July 1976, when the Project came under local funding, the Richfield and Burnsville districts ended their formal cooperative effort and concentrated on local development.

Six other Minnesota high schools have been or are currently associated with replication of the course the Project developed, "Futuristics: Theory and Application." They are the high schools at Moorhead, Grand Rapids, Benson, LeSeuer, Maple Lake, and Faribault. Funds from the Minnesota State Department of Education assist local districts in implementing portions of the Project.

At least 14 other Minnesota high schools are offering similar futures courses. Teacher training is provided through course work at the University of Minnesota, St. Cloud State University, and through two-week summer workshops sponsored by the Science Museum of

Minnesota. The schools offer their futures courses under the aegis of science, language arts, or social studies departments.

At Burnsville, "Futuristics..." is a two-trimester elective of the social studies department, but the course is eclectic, interdisciplinary, contemporary, and open-ended. Enrollment, which has steadily increased, has an equal distribution among tenth, eleventh, and twelfth grade students.

Divided into four phases, "Futuristics..." emphasizes

- the thinking of divergent futurists;
- techniques of forecasting;
- application of futurist thinking and forecasting techniques to particular topics;
- student contact with someone who is in the community in a futurist capacity related to the student's individual topic.

Among topics students have investigated in depth are genetics, alternative sources of energy, extraterrestrial communication, sound architecture, computer art, women, education, bio-ethics, industrial waste, and pollution. The intern phase of the Project during which students were released from school to visit and discuss their topics with practicing futurists has been de-emphasized since the end of federal funding. In the local effort the intern phase has been modified to include visitations to the classroom by more general kinds of futurists.

MAPLE HEIGHTS HIGH SCHOOL, 5500 Clement Drive, Maple Heights, Ohio 44137
Contacts: Thomas Spear, principal; Betty Barclay Franks, teacher

"Futuristics" was first offered by Maple Heights as a social studies elective in 1972, after Betty Barclay Franks had incorporated futures study into a family living class and had become interested in developing a full course. "Futuristics" has been a model for dozens of other Ohio high schools, both public and independent. The course emanated from a three-phase futures curriculum proposal by Franks and Dr. Mary Kay Howard of John Carroll University to the Greater Cleveland Council for the Social Studies. The Council agreed to sponsor the project, which was funded by the Martha Holden Jennings Foundation and John Carroll University.

Phase One involved 20 teachers and 10 students from 10 area school districts in a three-day, live-in workshop at John Carroll University. Consultants included Billy Rojas, then a futures professor at Alice Lloyd College in Kentucky, former research assistant to Alvin Toffler, and presently, editor of The Future Magazine; Maryjane Dunstan, communications instructor, College of Marin, Kentfield, Calif., and co-editor of Worlds in the Making: Probes for Students of the Future, probably the most widely used futures textbook in colleges and high schools; Dennis Livingston, Rensselaer Polytechnic Institute, one of the best known futurists in the world; and Paul Twelker, creator of the simulation Humanus. Among other futurists who contributed through a telephone conference was Isaac Asimov.

Phase Two built upon the network of futuristics teachers identified during Phase One and comprised a series of four Saturday workshops. Consultants were Gerard Piel, president and publisher of Scientific American; Robert Theobald, editor of Futures Conditional; and Max Singer, president of The Hudson Institute. The final session was an all-day futures media fair.

Phase Three was a five-week summer institute, co-directed by Franks and Howard. Teachers received a stipend and six hours of graduate credit in history or English. Guest faculty included George Leonard, author of The Transformation; Antony Wiener of The Hudson Institute; and Mihajlo Mesarovic of The Club of Rome. Consultants were Donald Erb, Cleveland Institute of Music, and Richard Franks, Cleveland State University, who dealt with music in the future and stressed the multi-disciplinary nature of futuristics. After the institute, participants not only had units which they could introduce in their own schools, but also a variety of alternative views of the future to take back to their students.

Since the three-phase project, Howard and Franks have been much in demand for information and inservice training of futures studies teachers throughout the country. At the 1977 convention of The National Council for the Social Studies they organized a special-interest group in futures studies.

The course description of "Futuristics" at Maple Heights High School is based on a film guide Howard and Franks prepared for the McGraw-Hill Film Division in 1975. Entitled Looking Forward: A Mini-Course in Futures Studies, it is based on themes from the movie "Future Shock" and eight of the 21st Century Series films.

In Franks' course at Maple Heights, students learn about coping with and anticipating change; forecasting; science fiction; evolution, the biological revolution; communications explosion; post-industrial society; cities of the future; global futures; and the major futurists. They participate in a Delphi study; write short science fiction pieces and scenarios; become involved in simulations (including Franks' own The IQ Game, a SAGA publication) and evaluate possible, probable, and preferable futures through brainstorming and values clarification.

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9 HAMPSHIRE HIGH SCHOOL, Hampshire, Ill. 60140
Contacts: Carl Brooks, principal
John Krewer, social science and futures team coordinator

Started in 1974, "Futuristics" is offered juniors and seniors through a thematic approach with units that vary each semester. The curriculum is funded through the Illinois State Gifted Program. Students may elect to take five, seven, nine, or 11 social studies credit hours for the four semesters. But the program is interdisciplinary with Ecology in the Future and Population Trends in the Future, both units taught by a biology teacher; Future Aptitudes, by a guidance department counselor; The Money-Less Society and Electronic Fund Transfer in Future, both taught by the social studies teachers; and Fine Arts in the Future, taught in the music department.

Enrollment in the course increased during 1977-78, largely because of enthusiastic promotion by former students; use of open-ended, divergent thinking strategies; and student future-planning projects on individual, national, and global bases that received a wide range of media publicity.

Involvement of guest speakers is emphasized. Speakers' topics last year included Morality of Transplants and Implants; The Family--2000 A.D.; Weather Control: Prospects and Implications; BTUs and Energy Trade-offs; Architecture in the Future; Science and Human Values; Biological Challenges; Science Fiction as Prophecy; and Living with Technology. Other activities include lecture, discussion, scenario writing, Delphi technique, futures wheel, and interaction matrix. Source materials have increased since 1974 and now include hundreds of books, magazines, and nonprint materials.

MARYKNOLL HIGH SCHOOL, 1402 Punahou Street, Honolulu, Hawaii 96822
Contact: Andrew W. Corcoran, vice-principal

The interdisciplinary "Futuristics" is a one-semester, one-half credit elective for juniors and seniors. The two team teachers are teachers of mathematics, English, and social studies. Several mini-units on futures studies are also included in Maryknoll's theology course.

The program of "Futuristics," taken by 30 percent of those eligible and 20 percent of the senior class, was planned by Andrew Corcoran after he attended the Earth 2020 Workshop at the University of Hawaii. He has also completed a master in education degree in future-oriented economics curriculum.

Objective of the "Futuristics" course is to help students develop an appreciation of the future as a place in time that individuals can influence. They consider the future as something to be created rather than to be endured. They investigate trends, possibilities and hopes for the next 25-50 years, with emphasis on how they may prepare for life in a world that does not now exist.

Units include Technology and Values, Populations, Food, Urbanization and Shelter, Transportation and Communications, Leisure and Work, Growth and No-Growth, Ecology and Environment, Energy and Resources, Government and Institutions, and War and Peace.

MILFORD JUNIOR AND SENIOR HIGH SCHOOLS, 5733-5735 Pleasant Hill Rd., Milford, Ohio 45150
Contacts: Earl T. Lambert, principal
Geoffrey H. Fletcher, coordinator, Milford Futurology Project

The Milford Futurology Project includes credit semester courses at the ninth grade level (started the fall of 1974), eleventh grade (1976), and fifth grade (1977). The courses are interdisciplinary, with English, social studies, science, and mathematics teachers participating at various times. Enrollment is kept to 20 gifted students per section per semester. The first year, the ninth grade futures studies course was subsidized by a grant from the Martha Holden Jennings Foundation. Subsequently, the local school district has funded the ninth and eleventh grades courses, as well as the formation during the 1976-77 school year of the fifth grade course.

The ninth-grade course includes four units: an introduction to the idea of futures studies, change, various data-gathering techniques, and the administration of several survey instruments concerning values and personal orientation. The second unit examines humanity as an individual biosystem. Topics are genetics, mind/brain manipulation, and death and its prevention; and current developments, trends, issues, and their ramifications for various value systems. The third unit considers humanity as an element of an ecological system. Students explore specific subsystems, such as population, food production, habitat, energy, and resources. Emphasized is man's use of these subsystems and alternative paths for the future. The final unit deals with institutions and social constructs that affect the quality of life -- parity, economy, and various social organizations -- and how they function and interrelate.

The eleventh-grade course parallels that of the ninth grade course in many ways, using the same unit but at a more sophisticated level of study. The introductory unit emphasizes various views of the future philosophically. In the biosystems unit, ramifications of continued biomedical advances are viewed through examination of Huxley's Brave New World. In the final unit, students take an in-depth look at the purposes and future of education and their role in it. The semester closes with consideration of the Utopian vision through history by study of Skinner's Walden Two and Callenbach's Ectotopia and the creation of personal Utopian visions.

MONTACHUSETT REGIONAL VOCATIONAL TECHNICAL SCHOOL DISTRICT, 1050 Westminster Street, Fitchburg, Mass. 01420
Contacts: George L. Ross, principal; Wilbur Carr, social studies instructor

"21st Century" is a senior-year, one-credit social studies course that has been a graduation requirement since the school opened eight years ago. Learning activity packages based on hundreds of futuristic materials are prepared by the two teachers, and are available to those interested. Although the course is given for a full year, most students complete it in less time because of the individualized, progressive system.

THOMAS JEFFERSON HIGH SCHOOL, 4001 West 102 Street, Bloomington, Minn. 55437
Contacts: Robert H. Smith, principal; Robert S. Wilson, teacher

"Future Shock" has been a semi-required semester course for seniors, offered by the social studies department, since 1972. It is semi-required in that it is one of four senior social studies courses, any two of which are required for graduation. Enrollment in "Future Shock" is held to a maximum of 135 students.

"Future Shock" was developed during the summer of 1972 through a curriculum writing team, followed by a teacher training program the following summer at the St. Paul Science Museum Curriculum Planning Program.

Activities in the course include field trips, scenario writing, music, poetry, science fiction, research papers, lecture, discussion, simulation/games, model design, filmstrips, films, and scrapbooks. Special features are guest speakers, videotapes, and student presentations of a graphic or three-dimensional model of a city in the year 2000 that must include climatic and geographic considerations, hardware, and social and governmental systems.

WILLOWBROOK HIGH SCHOOL, 1250 S. Ardmore, Villa Park, Ill. 60181
Contacts: William Campbell, principal; Bernard C. Hollister, teacher

"Grokking the Future" is a twelfth-grade social studies elective that attracts 90 percent of the senior class at Willowbrook. The title of the course comes from the word grok, coined by Robert Heinlein in his popular science fiction novel Stranger in a Strange Land. The central character, Valentine Michael Smith, a human born on Mars and raised by Martians, arrives on Earth and is overwhelmed by its strange ways. But he has the ability to "grok," that is, to experience a situation totally with all his senses and being. He is able to adjust to Earth and to direct Earthlings to a new salvation.

Bernard Hollister, who devised the course, is the author of Grokking the Future: Science Fiction in the Classroom (Pflaum/Standard) and a number of other books on using SciFi for teaching, a futurology text for slow learners, and filmstrips.

In his course at Willowbrook he uses science fiction as a tool for projecting students into the future. He makes a distinction between projections and predictions: Futurists, he notes, are in the business of projections and forecasts, not predictions. Although the units of "Grokking the Future" vary from year to year, for the 1977-78 semesters the units have been Introduction to Futuristics Techniques; Ecology: The Idea of

Spaceship Earth; Population: A Look at American and Worldwide Population Patterns; Technology: Computers, 3-D, TV, Etc.; Bio-Ethics: Cloning, Bionic Parts; and Utopias/Dystopias.

Using many of the other methods of teaching futures studies, Hollister has also devised at least one method of his own, "What If?" (See page three of this Curriculum Report.)

LAKEWOOD HIGH SCHOOL, 14100 Franklin Blvd., Lakewood, Ohio 44107
Contacts: Hugh Meabon, principal
John W. Wood, assistant principal for instruction

"Futuristics" is a social studies department semester elective for students in grades 10-12. It offers one-half unit of credit and meets five days a week. The five-year-old elective is based on the premise that only by involving students in serious decision-making and imaginative thinking and planning for the future, can they cope with events of today and tomorrow. Students deal with methods of anticipating the future, awareness of existing futuristic thought, and how these aspects relate to their value systems, especially in attempting to prevent undesirable futures.

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